Dualism Particle-Wave

1. Light beams

- **Wave Properties:**
  - Maxwell's equations
  - diffraction
  - interference
- **Particle Properties**
  - black-body radiation
  - Compton effect
  - photoelectric effect

2. Electron beams

- **Wave Properties:**
  - Schroedinger equation
  - diffraction
  - interference
- **Particle Properties**
  - Millikan experiment
  - momentum: p=mv
  - electron scattering

Bohr Model

- The electron moves only in certain circular orbits, called **stationary states**. This motion can be described classically.
- Radiation occurs only when an electron jumps from one allowed orbit to another one of lower energy. The radiated frequency is given by $hf = E_m - E_n$
- The circumference of the orbit is restricted to multiples of the de Broglie wavelength.